

# SCHEDULE AND GUIDELINES

## 2022 HYBRID WNY INVENTION CONVENTION



### SCHEDULE

**NOW-** Inventors start/finish/improve inventions and begin creating 4-5 minute video.

**3/1/22-** Registration opens at [wnyc.zfairs.com](http://wnyc.zfairs.com). Please register your **INTENT** to participate as soon as possible. You can complete registration when everything is finished. This link is found on our homepage:

[wnykidsinvent.org](http://wnykidsinvent.org)

**4/30/22-** Registration Closes. All materials must be uploaded by this time.

**5/1/22-** Online Judging begins. All Grade, Category, and Inventor of the Year Awards are determined by the online submissions.

**5/9/22-** Top 5 Winners Announced. They will be invited to participate in the National Invention Convention. All other winners will be revealed at the Online Awards Ceremony (TBD)

**5/15/22-** Inventor Showcase at the Buffalo Museum of Science

This is an OPTIONAL event where participants present their inventions in-person to judges. They will hone their confidence and communication skills while answering questions about their invention process. The Inventor Showcase Award Ceremony will be held at the Buffalo Museum of Science with special activities and events for the participants. A variety of Communication Awards will be presented which are separate from the awards presented for the online video submissions and have no bearing on Category or Grade Awards or participation at the National Invention Convention.

**5/31- 6/122-** National Invention Convention at the Henry Ford in Dearborn, MI.

### WHY A VIDEO?

National Invention Convention already requires a video for participation. WNYIC has adopted this requirement for our online judging.

### ARE TEAMS ALLOWED?

Teams of 2 are allowed. If the Inventors on a team are in different grades, the team will participate in the highest grade bracket of the two inventors.

### WHAT IS IN THIS DOCUMENT?

Guidelines for planning, filming, and uploading your video are included.

A judging rubric is included so you know the categories you will be judged on.

# INVENTION VIDEO EXAMPLES



Kindergarten

In this video, the young man is provided prompts.

**This is acceptable for K-3rd grade only.**

**No Pecker Egg Collector**

<https://youtu.be/7GIGr3tk3lk>

4th Grade

From 4th to 8th Grade, the videos need to be filmed without any audio prompts.

**Beat The Cheat**

<https://youtu.be/83SxKWXmSxA>

**Game On**

[https://youtu.be/xLZZ\\_\\_92PtM](https://youtu.be/xLZZ__92PtM)

5th Grade

**Scandicapped** (shows an onsite team-WNYIC only allows 2 per team)

<https://youtu.be/EGUjSuuxjws>

6th Grade

**Peanut Butter Singles**

[https://youtu.be/3\\_1ZrotUY\\_8](https://youtu.be/3_1ZrotUY_8)

8th Grade

**Tie Mask** (shows an at-home team of 2)

<https://youtu.be/NDwBm5HSqfY>

## Hint:

Notice that voice levels and the lighting is very important

invent it  
forward.

## HOW WILL THE INVENTION BE JUDGED IN THE ONLINE EVENT?

### Invention Process – 45 points

**Identifying & Understanding & Ideation-** How did the inventor uncover this problem? How did the inventor become passionate about this problem? Who else might experience the same problem and to what end? How did the inventor arrive at the solution?

**Designing & Building** - How did the inventor design the invention to work? How did the inventor choose the materials used to build the invention?

**Testing & Refining** - How did the inventor refine the design through testing? What challenges did the inventor encounter? How did the inventor overcome those challenges?

### Invention Impact – 25 points

**Originality:** Is the invention unique, novel, and creative? Is it different from prior inventions? What research did the inventor do to determine their invention's originality?

**Environmental or Social Impact** - How does the invention improve environmental or social conditions or have very little damage to the environment?

### Inventor Communication – 30 points

**Prototype or Model:** Does the prototype clearly communicate the key things that make the invention effective and beneficial?

**Display Board or Poster:** Is the information clear and neat?

**Video:** Does the video clearly communicate the invention process and impact? Is it organized, clear, and concise? Do inventors show enthusiasm and speak without reading from cue cards?

**Inventors Logbooks:** Is the Invention Process documented? Are there sources cited for research? Is the inventor's thought process evident?

**Hint:**

The next page will show a reminder of the Invention Process.

# 7-STEP INVENTION PROCESS



Identifying

**Identifying** a problem means brainstorming and using research to discover problems and who might have these problems.

Understanding

**Understanding** means using empathy and research to discover problems and who might have them.

Ideating

**Ideating** means thinking about the problem, brainstorming, and researching different ideas and options to solve the problem.

Designing

**Designing** means deciding what your invention's solution will be made of, what it will look like, and how it should work

Building

**Building** means assembling your invention into a prototype using the materials and the processes you have decided to use.

Testing

**Testing** your solution is how you find what works and what doesn't. You will modify or change your design, make the changes, and test those changes. This process is repeated until your invention or prototype works well.

Communicating

**Communicating** means explaining the problem, the research you did, how your invention solves the problem, who might use your invention, your process in creating this invention, and how you might make it even better.

Invent it  
forward.

## Hint:

The lighter arrows show the general order of the Invention Process.

The arrows on the side mean that you may find you need to repeat some steps.

# PRESENTATION GUIDELINES



## GUIDELINES FOR VIDEO PRESENTATIONS: PLANNING & PROMPTS

- The video should be between 4-5 minutes long
- There should be **NO editing or post-production effects** (the video should run continuously)
- For students in grades K-3: Parents may prompt students with questions (see “For K-3 Inventors” below)

### For K-3 Inventors

K-3 inventors may need an adult to prompt them with questions from behind the camera.

Questions that might help your inventor when filming:

- Can you tell me how you thought of this invention?
- What problem are you trying to solve with this invention?
- How does your invention work?
- Did you make any changes to your invention? Why did you make those changes?
- Who do you think will use this invention?
- Does your invention help the world, or just a few people?
- What impact on the environment do you think your invention will have?

## PLANNING YOUR CONTENT

Use the Judges Rubric to plan the content of your video.

Here are some tips that all grades should find useful:

- **Begin with introductions-** Each inventor should say their name, grade, school, and the name of their invention
- **What makes your invention Original?-** Talk about the originality of your invention and the research you have done to discover what makes your invention original, **OR** a big improvement on a product that already exists.
- **Be sure to talk about all steps of the Invention Process**
  - How did you identify the problem?
  - How did you determine which idea you wanted to pursue?
  - What challenges did you encounter?
  - What changes did you make and why?
- **Statement Starters You can Use (these are just examples)**
  - "Other things I discovered through my research were...."
  - "My challenges were...."
  - "I discovered that..."
  - "I changed and improved my solution by...."
  - "My solution is different because...."

Invent it  
forward.

### Hint:

The following pages will help you with your content and timing

## GUIDELINES FOR VIDEO PRESENTATIONS: TOPICS & TIMING

### When preparing for your presentation, use this outline as a guideline

- These topics are what judges will be scoring you on, so you want to make sure you address these in your presentation
- Overall, the judges want to hear about your invention process, so spend time explaining how you arrived at your end result
- The times suggested for each topic are just that, a suggestion
- Don't feel that you have to speak for that long. Be concise with what you have to say, and do not worry if your video does not reach the maximum time

### Invention Process (app. 2 minutes)

#### **Problem and Solution identification – Identifying, Understanding, Ideating**

- Arrival at the problem
- How did you uncover the problem?
- How did you become passionate about this problem?
  - Answer could be a personal story with connection to problem or a written process of identifying and researching a problem and its impact

#### **Research on who is affected by this problem**

- What sources did you use to uncover the problem your invention solves and to better understand the situation?
  - Answers could be a personal story of how you were inspired or a bibliography of sources. If you spoke to an expert, tell us about what you learned!

#### **Arrival at the solution**

- How did you arrive at your solution?
- How does your solution solve the problem you identified in your research?
- What sources did you use to uncover your solution and to better understand your ideas?

#### **Originality research**

- What research did you do to see if something like your invention already exists?
- How did you modify your ideas to be unique?

#### **Hint:**

These timing suggestions are approximate! The video needs to be THOROUGH and between 4-5 minutes long

## GUIDELINES FOR VIDEO PRESENTATIONS: TOPICS & TIMING

### Engineering Design Process (app. 2 minutes)

#### Designing, Building, Testing

- Present your prototype
- How does your prototype work? Show the judges in your video. If you have a non-working model, explain how your prototype would work.
- How did you choose the materials used to build the invention?

#### Testing and iteration

- How did you test your invention to see if it would work?
- What changes or refinements did you make to your invention during the testing process?
- What challenges did you face and how did you overcome them?
- What did you learn as a result of inventing?

### Invention Impact (app.1 minute)

#### Entrepreneurship - Marketing, Why it's Valuable (eg. social value, etc.)

- Social/environmental impact of the invention
- How does the invention improve environmental or social conditions or have a minimal environmental impact?

#### Your market or audience

- Who might use your invention?
- How much might it cost if you were to sell it?

Invent it  
forward.

#### Hint:

These timing suggestions are approximate! The video needs to be THOROUGH and between 4-5 minutes long

## GUIDELINES FOR VIDEO PRESENTATIONS: TOPICS & TIMING

### How To film Your Video

- Film with a smart device (phone, tablet, etc.) or video camera
- Plan what you are going to say
- If you are on a team with both inventors onsite, decide who will talk about which topics before filming
- If you are on a team where one inventor lives elsewhere, decide who will be the presenter but do your planning together OR
  - You may do a recorded Zoom presentation but make sure the lighting and sound is good in both locations
- Use your prototype and display board in the video
  - Find a quiet, well-lit spot where you can set up your display board, invention and you have room to present
  - Natural light from windows works well
  - Do not stand in front of the window; you'll appear as a shadow
  - The light should be coming toward you, your invention, and your display board
- Use a loud, clear voice
- You may want to practice your presentation a few times with the camera to get comfortable and to make sure about the timing, sound, and lighting

### How To Upload Your Video

- Upload the video to a video sharing website, such as YouTube as **UNLISTED**. \_\_\_\_\_
- Do NOT set them to PRIVATE as this will leave them inaccessible to your judges
  - UNLISTED is recommended- this means your video will not appear on searches, so no one can access the video without the link
- You can create a channel just for your video or upload to a family member's channel
- When you name your video, do not put your name or school in it.
  - Your video's link will always be associated with your Profile so it doesn't need to have identifying information in it
- Test your link by mailing it to someone and ask them to view it
- wnyic.zfairs.com provides a place to copy and paste the YouTube video link as part of your Profile!

**Hint:** Before recording, take a deep breath and relax. Remember, you are the expert on your invention!